

Atty. Dkt. No. 032026-0579

**REMARKS**

By the present communication, claims 29, 40 and 46 are amended, claims 30, 36, 38-39, 52-58 are canceled; and claims 59-60 are added to define Applicants' invention with greater particularity. No new matter has been added and the new claims are fully supported by the specification and claims as originally filed. Claims 29, 37, 40-48, and 59-60 are pending.

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

**I. Objections to Claims**

The objection to claim 36 as being dependent from rejected claim 29 is respectfully traversed. Solely to advance prosecution, claim 36 has been canceled by the present communication and the elements of claim 36 added to claim 29. As such, it is respectfully submitted that amended claim 29 and dependent claims 42-45 are patentable. Accordingly, withdrawal of the objection to claim 36 and allowance of claims 29 and 42-45 are respectfully requested.

Applicants traverse the objection to claim 46 due to an informality. The informality has been corrected per the Examiner's suggestion. Claim 46, which was indirectly dependent on rejected claim 29, has also been amended to recite all the elements of claim 29. As such, it is respectfully submitted that amended claim 46 and newly added dependent claims 59-60 are patentable. Applicants respectfully request withdrawal of the objection to claim 46 and allowance of claims 46 and 59-60.

Claims 47-48 were also objected to, but no reasons for the objection were provided in the Office Action. Applicants respectfully submit that there is no basis for the present objection to these claims and respectfully request the objection be withdrawn and claims 47-48 be allowed.

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**II. Claim Rejections Under 35 U.S.C. § 112, first paragraph**

Claims 29, 30, 37-45, and 49-58 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly lacking adequate written description. Although Applicants continue to disagree with the present rejection, solely to advance prosecution, claims 30, 38-39, and 49-58 have been canceled, rendering the rejection moot with respect to these claims. Claim 29 has been amended to incorporate the elements of objected to claim 36. Claim 40 has been amended to recite the use of a lysine 2,3-aminomutase having an amino acid sequence selected from the group consisting of (i) SEQ ID NO: 4, and (ii) a conservative amino acid variant of SEQ ID NO: 4. Applicants respectfully submit that claims 29 and 40 as well as dependent claims 37 and 41-45 are clear as written and request that the present rejection be withdrawn.

**III. Claim Rejections Under 35 U.S.C. § 102(b)**

Claims 30, 38 and 39 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Chirpich I (J. Biol. Chem. 245, 1778-89, 1970) and, separately, by Chirpich II (Preparative Biochemistry 3, 47-52 (1973)). While Applicants continue to disagree with the present rejection for the reasons of record, claims 30, 38 and 39 have been canceled solely to advance prosecution. Accordingly, Applicants request withdrawal of this rejection.

**IV. Claim Rejections Under 35 U.S.C. § 103(a)**

Claims 29, 37, 42, 43 and 45 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Chirpich I (J. Biol. Chem. 245, 1778-89, 1970) and the claims 40 and 41 stand rejected as allegedly obvious over Chirpich I in view of Rozzell (U.S. Patent No. 4,880,738) and Kusumoto (Tetrahedron Letters, 23, 2961-64). While Applicants continue to disagree with the present rejection for the reasons of record, claim 29 has been amended to incorporate the elements of objected to claim 36 and claim 40 has been amended to recite the use of a lysine 2,3-aminomutase having an amino acid sequence selected from the group consisting of (i) SEQ ID NO: 4, and (ii) a conservative amino acid variant of SEQ ID NO: 4. As none of

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the cited references teach or suggest the use of the recited lysine 2,3-aminomutase, Applicants respectfully submit that claims 29 and 40 and dependent claims 37, 41, 42,43, and 45 are patentable over the cited references. Accordingly, withdrawal of the present rejection is respectfully requested.

#### V. Conclusion

In view of the above amendment and remarks, reconsideration and favorable action on all claims are respectfully requested. If any issue remains to be resolved in view of this response, the Examiner is invited to contact the undersigned at the telephone number set forth below so a prompt disposition of this application can be achieved.

Respectfully submitted,

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